

1. An aerosol solvent weld cement composition for welding plastic pipe, said composition comprising:

- (a) at least one resin adapted bond to plastic pipe;
- (b) at least one solvent; and
- (c) at least one propellant;

said composition being under a pressure greater than ambient atmospheric pressure.

2. An aerosol solvent weld cement composition according to claim 1 wherein said at least one resin is selected from the group consisting of chloropolyvinylchloride resins, polyvinyl chloride resins, ABS resins, (butyrate)resins, and acrylic resins.

3. An aerosol solvent weld cement composition according to claim 1 wherein said at least one resin comprises from about 10% to about 30% by weight of said aerosol solvent weld cement composition.

4. An aerosol solvent weld cement composition according to claim 3 wherein said at least one resin comprises chloropolyvinylchloride resin present in an amount of about 10% by weight of said aerosol solvent weld cement composition.

5. An aerosol solvent weld cement composition according to claim 1 wherein said at least one solvent is selected from the group consisting of tetrahydrofuran, acetone, diethoxyethane,

N-methyl pyrrolidone, dibasicesters, alkylene carbonates,
5 dimethylformamide, ethyl acetate, methyl isobutyl ketone, methyl
alcohol, cyclohexanone, methyl ethyl ketone, gamma-butyrolactone,
and mixtures thereof.

6. An aerosol solvent weld cement composition according to
claim 1 which includes a solvent blend comprising
tetrahydrofuran, acetone, cyclohexanone, and gamma-butyrolactone.

7. An aerosol solvent weld cement composition according to
claim 6 wherein said solvent blend comprises about 40% by weight
tetrahydrofuran, 30% by weight acetone, 15% by weight
cyclohexanone, and 10% by weight gamma-butyrolactone.

8. An aerosol solvent weld cement composition according to
claim 1 additionally comprising a suspending agent.

9. An aerosol solvent weld cement composition according to
claim 1 additionally comprising a dye.

10. An aerosol solvent weld cement composition according to
claim 1 wherein said at least one propellant comprises dimethyl
ether or dimethyl ether blended with a substance selected from
the group consisting of isobutane, butane, propane, nitrogen,
5 carbon dioxide, 1-difluoroethane, tetrafluoroethane, and mixtures
thereof.

11. An aerosol solvent weld cement composition according to claim 1 which includes a resin stabilizer.

12. An aerosol solvent weld cement composition according to claim 11 wherein said at least one propellant is dimethyl ether and wherein said dimethyl ether is present in an amount of between 20% to about 50% by weight of said aerosol solvent weld cement composition.

13. An aerosol solvent weld cement composition according to claim 12 wherein said dimethyl ether comprises about 30% of said aerosol solvent weld cement composition.

14. An aerosol solvent weld cement composition in a container for welding plastic pipe, said composition comprising:

- (a) at least one resin adapted to bond to plastic pipe;
- (b) at least one solvent; and
- (c) at least one propellant;

said composition being under a pressure greater than ambient atmospheric pressure, and said composition being disposed in a container adapted to contain said pressurized aerosol solvent weld cement composition, said container comprising an outlet and a valve to control the release of said pressurized solvent weld cement from said container.

15. An aerosol solvent weld cement composition in a container according to claim 14 wherein said at least one resin is selected from the group consisting of chloropolyvinylchloride resins, polyvinyl chloride resins, ABS resins, (butyrate)resins, and acrylic resins.

16. An aerosol solvent weld cement composition in a container according to claim 14 wherein said at least one solvent is selected from the group consisting of tetrahydrofuran, acetone, diethoxyethane, N-methyl pyrrolidone, dibasicesters, alkylene carbonates, dimethylformamide, ethyl acetate, methyl isobutyl ketone, methyl alcohol, cyclohexanone, methyl ethyl ketone, gamma-butyrolactone, and mixtures thereof.

17. An aerosol solvent weld cement composition in a container according to claim 14 wherein said aerosol solvent weld cement composition additionally comprises a suspending agent.

18. An aerosol solvent weld cement composition in a container according to claim 14 wherein said at least one propellant is dimethyl ether or a blend of dimethyl ether and a propellant selected from the group of isobutane, butane, propane, nitrogen, carbon dioxide, 1-difluoroethane, tetrafluoroethane, and mixtures thereof.

19. An aerosol solvent weld cement composition in a container according to claim 14 wherein said container comprises a 360° valve.

20. An aerosol solvent weld cement composition in a container according to claim 14 wherein said container comprises an unrestricted actuator.

21. A method of dispensing an aerosol solvent weld cement composition, said method comprising;

(a) obtaining pressurized aerosol solvent weld cement composition in a dispensing container, said composition comprising;

(1) at least one resin adapted to weld to plastic pipe;

(2) at least one solvent; and

(3) at least one propellant;

10 said composition being under a pressure greater than ambient atmospheric pressure; said composition being disposed in a container adapted to contain said pressurized aerosol solvent weld cement composition, said container comprising an outlet and a valve to control the release of
15 said pressurized aerosol solvent weld cement from said container; and

(b) opening said valve so as to cause said pressurized aerosol solvent weld cement composition to be released from said container.

22. A method according to claim 11 wherein said at least one resin is selected from the group consisting of chloropolyvinylchloride resins, polyvinyl chloride resins, ABS resins, (butyrate)resins, and acrylic resins.

23. A method according to claim 22 wherein said at least one solvent is selected from the group consisting of tetrahydrofuran, acetone, diethoxyethane, N-methyl pyrrolidone, dibasicesters, alkylene carbonates, dimethylformamide, ethyl acetate, methyl isobutyl ketone, methyl alcohol, cyclohexanone, methyl ethyl ketone, gamma-butyrolactone, and mixtures thereof.

24. A method according to claim 22 wherein said aerosol solvent weld cement composition additionally comprises a suspending agent.

25. A method according to claim 22 wherein said at least one propellant is dimethyl ether or a blend of dimethyl ether and a propellant selected from the group of isobutane, butane, propane, nitrogen, carbon dioxide, 1-difluoroethane, tetrafluoroethane, and mixtures of any two or more of said propellants.

26. A method according to claim 22 wherein said container comprises a 360° valve and an unrestricted actuator.

27. A method of welding two sections of plastic pipe at a junction by an aerosol solvent weld cement composition, said method comprising;

(a) obtaining a pressurized aerosol solvent weld cement composition in a dispensing container, said composition comprising:

(1) at least one resin adapted to weld to plastic pipe;

(2) at least one solvent; and

(3) at least one propellant;

said composition being under a pressure greater than ambient atmospheric pressure, said composition being disposed in a container adapted to contain said pressurized aerosol solvent weld cement composition, said container comprising an outlet and a valve to control the release of said pressurized aerosol solvent weld cement from said container; and

(b) opening said valve so as to cause said pressurized aerosol solvent weld cement composition to be released from said container onto at least one of said two sections of plastic pipe at the prospective location of said junction; and

(c) adjoining said two sections of plastic pipe so as to form said junction by welding action.

28. A method according to claim 27 wherein said at least one resin is selected from the group consisting of chloropolyvinylchloride resins, polyvinyl chloride resins, ABS resins, (butyrate)resins, and acrylic resins.

29. A method according to claim 27 wherein said at least one solvent is selected from the group consisting of tetrahydrofuran, acetone, diethoxyethane, N-methyl pyrrolidone, dibasicesters, alkylene carbonates, dimethylformamide, ethyl acetate, methyl isobutyl ketone, methyl alcohol, cyclohexanone, methyl ethyl ketone, gamma-butyrolactone, and mixtures thereof.

30. A method according to claim 27 wherein said aerosol composition additionally comprises a suspending agent.

31. A method according to claim 27 wherein said at least one propellant is dimethyl ether or a blend of dimethyl ether and a propellant selected from the group of isobutane, butane, propane, nitrogen, carbon dioxide, 1-difluoroethane, tetrafluoroethane, and mixtures of any two or more of said propellants.

32. A method according to claim 27 said container comprises a 360° valve and an unrestricted actuator.

33. A method according to claim 27 wherein said at least one resin comprises from about 10% to about 30% by weight of said aerosol solvent weld cement composition.

34. A method according to claim 27 wherein said at least one resin comprises (chloropolyvinylchloride) resin present in an amount of about 10% by weight of said aerosol solvent weld cement composition.

35. A method according to claim 27 which includes a solvent blend comprising tetrahydrofuran, acetone, cyclohexanone, and gamma-butyrolactone.

36. A method according to claim 27 wherein said solvent blend comprises about 40% by weight tetrahydrofuran, 30% by weight acetone, 15% by weight cyclohexanone, and 10% by weight gamma-butyrolactone.

37. A method according to claim 27 which (includes a dye.)

38. A method according to claim 31 wherein at least one propellant is dimethyl ether and wherein said dimethyl ether is present in an amount of between about 20% to about 50% by weight of said aerosol solvent weld cement composition.

39. A method according to claim 38 wherein said dimethyl ether comprises about 30% of said aerosol solvent weld cement composition.

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